



Attention of : Ms. R. Rodriguez

Analysis Report

Report number : 13201/00026293.1/L/19 Composite prep date : 2019-05-22
Main Object : GREAT CRISTOBAL Place of sampling : Puerto Internacional Punta Rincon
Report Date : 2019-05-23 Date received : 2019-05-22
Date of issue : 2019-05-23 Date completed : 2019-05-23
Sample object : 9002 Sample number : 8227764
Sample type : Composite
Sample submitted as : ULSD
Marked : Shore tank 9002 single tank composite - after discharge

NAME	METHOD	UNIT	SPECS		RESULT
			Min	Max	
Gravity API at 60 °F	ASTM D 4052	°API	32.0		35.8
Appearance ¹	ASTM D 4176	-	B & C		N/A
Color ASTM	ASTM D 1500	-		2.5	N/A
Water and Sediment	ASTM D 2709	vol %		0.05	< 0.1
Flash point (PM) procedure A	ASTM D 93	°C	60		70.0
Sulphur (S)	ASTM D 5453	mg/kg		15	8.73
Ash Content	ASTM D 482	mass %		0.01	< 0.001
Micro Carbon Residue (10% bottom)	ASTM D 4530 / D 86	mass %		0.30	< 0.10
Copper Strip Corrosion (3 hrs / 50 °C)	ASTM D 130	-		2	1A
Kinematic Viscosity at 40°C	ASTM D 445	mm²/s	1.9	4.1	2.920
Cetane Index	ASTM D 976	-	45		49.6
Distillation	ASTM D 86				
10% Recovered		°C		Report	215.1
50% Recovered		°C		Report	271.8
90% Recovered		°C	282	338	334.4
Final boiling point		°C		Report	359.8
Residue		vol %		2	1.6
Loss		vol %		2	1.0
Lubricity Test at 60 °C (Wear Scar Diameter)	ASTM D 6079	µm		520	290
Conductivity at 25°C	ASTM D 2624	pS/m	25		543
Biodiesel	ASTM D 7371	vol %		0.1	<0.100

Remarks:

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Signed by: Everner Jimenez - Laboratory Manager/Assistant Mgr
Issued by: Core Laboratories Panama, S.A.
Place and date of issue: Panama City - 2019-05-23

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